10/522,646

FILE CABLUS

## => d ibib abs 1-75

ANSWER 1 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2007:394676 CAPLUS

TITLE:

Determination of Fenofibric Acid Concentrations by HPLC After Anion Exchange Solid-Phase Extraction From

Human Serum

AUTHOR (S): Straka, Robert J.; Burkhardt, R. Todd; Fisher, James

CORPORATE SOURCE: University of Minnesota College of Pharmacy, .,

Department of Experimental and Clinical Pharmacology,

Minneapolis, MN, USA

SOURCE: Therapeutic Drug Monitoring (2007), 29(2), 197-202

CODEN: TDMODV; ISSN: 0163-4356

PUBLISHER:

Lippincott Williams & Wilkins

DOCUMENT TYPE:

Journal English

LANGUAGE:

Triglycerides are increasingly being recognized as a risk factor for cardiovascular disease. Research efforts to identify sources of variability in triglyceride-lowering response to the lipid-lowering drug fenofibrate require quantification of the active acidic form of this PPAR- $\alpha$  agonist. Anion-exchange

solid-phase extraction, in combination with reverse-phase high-performance liquid

chromatog. (HPLC), rapidly and accurately dets. steady-state fenofibric acid serum concns. Chromatog. separation under isocratic conditions, with use of UV detection at 285 nm, provides clean baseline and sharp peaks for clofibric acid, 1-naphthyl acetic acid (internal stds.), and fenofibric acid. Commonly prescribed and over-the-counter nonsteroidal anti-inflammatory drugs (NSAIDs) were screened for assay interference, and the assay was employed to quantify fenofibric acid in more than 800 human subject specimens. Fenofibric acid anal. was found to be linear over the range of 0.5 to 40 mg/L and was validated with either internal standard Accuracies ranged from 98.65% to 102.4%, whereas the within- and between-day precisions ranged from 1.0% to 2.2% and 2.0% to 6.2%, resp. NSAIDs had minimal interference with the assay, which succeeded in quantifying fenofibric acid in more than 843 of 846 serum samples from human subjects, many taking a variety of coadministered medications. Anion-exchange solid-phase extraction in combination with reverse-phase HPLC accurately dets. steady-state fenofibric acid serum concns. in humans without interference from NSAIDs or commonly administered medications. This method is suitable for quantification of fenofibric acid for clin. pharmacokinetic studies in patients with dyslipidemia.

ANSWER 2 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2007:363075 CAPLUS

DOCUMENT NUMBER:

146:309025

TITLE:

Effects of a potent and selective PPAR-.

alpha. agonist in patients with atherogenic dyslipidemia or

hypercholesterolemia. Two randomized

controlled trials

AUTHOR (S):

Nissen, Steven E.; Nicholls, Stephen J.; Wolski, Kathy; Howey, Daniel C.; McErlean, Ellen; Wang,

Ming-Dauh; Gomez, Elisa V.; Russo, John M.

CORPORATE SOURCE:

Department of Cardiovascular Medicine, Cleveland Clinic Lerner School of Medicine, Cleveland, OH, USA

SOURCE:

JAMA, the Journal of the American Medical Association

(2007), 297(12), 1362-1373

CODEN: JAMAAP; ISSN: 0098-7484 American Medical Association

DOCUMENT TYPE:

Journal

English

PUBLISHER: LANGUAGE:

PUBLISHER: Endocrine Society

DOCUMENT TYPE: Journal LANGUAGE: English

LSN862 is a novel peroxisome proliferator-activated receptor  $(PPAR)\alpha/\gamma$  dual agonist with a unique in vitro profile that shows improvements on glucose and lipid levels in rodent models of type 2 diabetes and dyslipidemia. Data from in vitro binding, cotransfection, and cofactor recruitment assays characterize LSN862 as a high-affinity PPARy partial agonist with relatively less but significant PPARa agonist activity. Using these same assays, rosiglitazone was characterized as a high-affinity PPARy full agonist with no PPARa activity. When administered to Zucker diabetic fatty rats, LSN862 displayed significant glucose and triglyceride lowering and a significantly greater increase in adiponectin levels compared with rosiglitazone. Expression of genes involved in metabolic pathways in the liver and in two fat depots from compound treated Zucker diabetic fatty rats was evaluated. Only LSN862 significantly elevated mRNA levels of pyruvate dehydrogenase kinase isoenzyme 4 and bifunctional enzyme in the liver and lipoprotein lipase in both fat depots. In contrast, both LSN862 and rosiglitazone decreased phosphoenol pyruvate carboxykinase in the liver and increased malic enzyme mRNA levels in the fat. In addition, LSN862 was examined in a second rodent model of type 2 diabetes, db/db mice. In this study, LSN862 demonstrated statistically better antidiabetic efficacy compared with rosiglitazone with an equivalent side effect profile. LSN862, rosiglitazone, and fenofibrate were each evaluated in the humanized apoAl transgenic mouse. At the highest dose administered, LSN862 and fenofibrate reduced very low-d. lipoprotein cholesterol, whereas, rosiglitazone increased very low-d. lipoprotein cholesterol. LSN862, fenofibrate, and rosiglitazone produced maximal increases in high-d. lipoprotein cholesterol of 65, 54, and 30%, resp. These findings show that PPARy full agonist activity is not necessary to achieve potent and efficacious insulin-sensitizing

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 52 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:463191 CAPLUS

DOCUMENT NUMBER: 143:186489

PPAR $\alpha/\gamma$  dual agonist.

TITLE: Oleoylethanolamide, an endogenous PPAR-.

benefits and demonstrate the therapeutic advantages of a

alpha. agonist, lowers body weight and hyperlipidemia in obese rats

AUTHOR(S): Fu, Jin; Oveisi, Fariba; Gaetani, Silvana; Lin,

Edward; Piomelli, Daniele

CORPORATE SOURCE: Department of Psychiatry, University of California,

Irvine, CA, USA

SOURCE: Neuropharmacology (2005), 48(8), 1147-1153

CODEN: NEPHBW; ISSN: 0028-3908

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

The fatty-acid ethanolamide, oleoylethanolamide (OEA), is a naturally occurring lipid that regulates feeding and body weight, and serves as an endogenous agonist of peroxisome proliferator-activated receptor-alpha (PPAR- $\alpha$ ), a ligand-activated transcription factor that regulates several aspects of lipid metabolism OEA reduces food intake in wild-type mice, but not in mice deficient in PPAR- $\alpha$  (PPAR- $\alpha$ -/-), an effect that is also observed with the PPAR- $\alpha$  agonists Wy-14643 and GW7647. By contrast, specific agonists of PPAR- $\delta/\beta$  (GW501516) or PPAR- $\gamma$  (ciglitazone) have no such effect. In obese Zucker rats, which lack functional leptin receptors, OEA reduces food intake and lowers body-weight gain along with plasma lipid

levels. Similar effects are seen in diet-induced obese rats and mice. In the present study, we report that subchronic OEA treatment (5 mg kg-1, i.p., once daily for two weeks) in Zucker rats initiates transcription of PPAR- $\alpha$  and other PPAR- $\alpha$  target genes, including fatty-acid translocase (FAT/CD36), liver fatty-acid binding protein (L-FABP), and uncoupling protein-2 (UCP-2). Moreover, OEA decreases neutral lipid content in hepatocytes, as assessed by Oil red O staining, as well as serum cholesterol and triglyceride levels. The results suggest that OEA regulates lipid metabolism and that this effect may contribute to its anti-obesity properties.

REFERENCE COUNT:

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS 17 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 53 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:457004 CAPLUS

DOCUMENT NUMBER:

143:165756

TITLE:

The potential use of PPAR $\alpha$ 

agonists as immunosuppressive agents

AUTHOR (S):

Cunard, Robyn

CORPORATE SOURCE:

Research and Medicine Services, Division of

Nephrology, UCSD and VASDHS 151, San Diego, CA, 92161,

SOURCE:

Current Opinion in Investigational Drugs (Thomson

Scientific) (2005), 6(5), 467-472 CODEN: COIDAZ; ISSN: 1472-4472

PUBLISHER:

Thomson Scientific Journal; General Review

DOCUMENT TYPE:

English

LANGUAGE:

A review. Fibrates are peroxisome proliferator-activated receptor (PPAR)α ligands that have been used to treat hyperlipidemia and atherosclerosis for many years, and research has demonstrated that these agents have immunosuppressive effects. PPARa is expressed in multiple inflammatory cell types, and its ligands abrogate expression of inflammatory diseases. This review focuses on the use of fibrates in inflammatory disease models. It also describes proposed mechanisms of action of PPARa ligands and discusses the potential use of these medications as immunosuppressive agents.

REFERENCE COUNT:

91 THERE ARE 91 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 54 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:405064 CAPLUS

DOCUMENT NUMBER:

142:447124

TITLE:

Preparation of acylsulfonamide derivatives as acetyl-CoA carboxylase inhibitors, their pharmaceutical compositions, and their uses

INVENTOR (S):

Ichinose, Hidehiro; Nihei, Yukio; Yamamoto, Takashi; Suzuki, Nobuyasu; Nakanishi, Eiji; Kondo, Nobuo

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 34 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005119987	Α	20050512	JP 2003-354530	20031015
PRIORITY APPLN. INFO.:			JP 2003-354530	20031015
OTHER SOURCE(S):	MARPAT	142:447124		

agonist fibrates are used in dyslipidemia. Here their mechanism of action and the pre-clin. and clin. evidence for the use of these medications for the prevention and treatment of atherosclerotic disease is explored. In addition, the role of PPAR- $\delta$  and the

possibilities for the role of dual-binding agonists are examined

REFERENCE COUNT: 103 THERE ARE 103 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L5 ANSWER 70 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:758039 CAPLUS

DOCUMENT NUMBER:

141:288479

TITLE:

Peroxisome proliferator-activated receptor (PPAR)- $\alpha$ : A pharmacological target with a

promising future

AUTHOR(S):

van Raalte, Daniel H.; Li, Min; Pritchard, P. Haydn;

Wasan, Kishor M.

CORPORATE SOURCE:

Division of Pharmaceutics and Biopharmaceutics, Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, BC, V6T 1Z3, Can. Pharmaceutical Research (2004), 21(9), 1531-1538

CODEN: PHREEB; ISSN: 0724-8741

PUBLISHER:

Springer Science+Business Media, Inc.

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

SOURCE:

English

A review. Peroxisome proliferator-activated receptor (PPAR)- $\alpha$  is a ligand-activated transcriptional factor that belongs to the family of nuclear receptors. PPAR- $\alpha$  regulates the expression of genes involved in fatty acid  $\beta$ -oxidation and is a major regulator of energy homeostasis. Fibrates are PPAR- $\alpha$ agonists and have been used to treat dyslipidemia for several decades because of their triglyceride (TG) lowering and high-d. lipoprotein cholesterol (HDL-C) elevating effects. More recent research has demonstrated anti-inflammatory and anti-thrombotic actions of PPAR- $\alpha$  agonists in the vessel wall as Thus, PPAR- $\alpha$  agonists decrease the progression of atherosclerosis by modulating metabolic risk factors and by their anti-inflammatory actions on the level of the vascular wall. This is confirmed by several clin. studies, in which fibrates have shown to reduce atherosclerotic plaque formation and the event rate of coronary heart disease (CHD), especially in patients suffering from metabolic syndrome (MS). MS is characterized by a group of metabolic risk factors that include obesity, raised blood pressure, dyslipidemia, insulin

include obesity, raised blood pressure, dyslipidemia, insulin resistance or glucose intolerance, and a prothrombotic state, and its incidence in the Western world is rising to epidemic proportions. This review paper will focus on the functions of PPAR- $\alpha$  in fatty acid  $\beta$ -oxidation, lipid metabolism, and vascular inflammation. Furthermore, PPAR- $\alpha$  genetics, the clin. use of PPAR- $\alpha$  activators and their future perspective will be discussed.

REFERENCE COUNT:

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 71 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:709257 CAPLUS

DOCUMENT NUMBER:

142:127183

TITLE:

Effect of liver fatty acid binding protein (FABP) T94A missense mutation on plasma lipoprotein responsiveness

to treatment with fenofibrate

AUTHOR(S): Brouillette, Charles; Bosse, Yohan; Perusse, Louis;

Gaudet, Daniel; Vohl, Marie-Claude

CORPORATE SOURCE:

Lipid Research Center, CHUL Research Center,

Sainte-Foy, QC, G1V 4G2, Can.

SOURCE: Journal of Human Genetics (2004), 49(8), 424-432

CODEN: JHGEFR; ISSN: 1434-5161

PUBLISHER: Springer Tokyo

DOCUMENT TYPE: Journal LANGUAGE: English

Fenofibrate, a peroxisome proliferated activated receptor alpha (  $PPAR\alpha$  ) agonist, has been shown to decrease plasma triglyceride (TG) and increase plasma high-d. lipoprotein (HDL) cholesterol levels despite a large interindividual variation in the response. Fenofibrate-activated PPARα binds to a DNA sequence element termed PPAR response element (PPRE) present in regulatory regions of target genes. A PPRE has been identified in the proximal 5' flanking region of the gene encoding the liver fatty acid binding protein (LFABP). LFABP is a small cytosolic protein of 14 kDa present in the liver and the intestine and is a member of the superfamily of the fatty acid binding proteins (FABPs). FABPs play a role in the solubilization of long-chain fatty acids (LCFAs) and their CoA-ester to various intracellular organelles. FABPs serves as intracellular acceptors of LCFAs, and they may also have an impact in ligand-dependent transactivation of PPARs in trafficking LCFAs to the nucleus. Since PPARs are known to regulate the transcription of many genes involved in lipid metabolism, the importance of LFABP in fatty acid uptake has to be considered. The aim of this study was to verify whether genetic variations in the LFABP gene may impact on plasma lipoprotein/lipid levels in the fasting state as well as on the response to a lipid-lowering therapy with fenofibrate on plasma lipids and obesity variables. We also wanted to verify whether the presence of the PPARα L162V mutation interacts with genetic variants in LFABP gene. To achieve this goal, we first determined the genomic structure of the human LFABP gene and then designed intronic primers to sequence the coding regions, all exon-intron splicing boundaries, and the promoter region of the gene in 24 patients showing divergent plasma lipoprotein/lipid response to fenofibrate. Sequence anal. revealed the presence of a T94A missense mutation in exon 3. Interspecies comparison revealed that threonine 94 is conserved among species. We subsequently screened another sample of 130 French Canadian subjects treated with fenofibrate for the presence of the LFABP T94A mutation. Carriers of the A94 allele were at increased risk to exhibit plasma TG levels above 2.00 mmol/l after treatment with fenofibrate [2.75 (1.03-7.34); OR 95% confidence interval (CI)]. In addition, carriers of the A94 allele were characterized by higher baseline plasma-free fatty acid levels (FFA) (p=0.01) and by a lower body mass index (BMI) (p=0.05) and waist circumference (p=0.005) than T94 homozygotes. Moreover, PPAR $\alpha$  L162V and LFABP T94A showed to have a synergistic effect on BMI (p interaction = 0.03). These results suggest that the LFABP T94A missense mutation could influence obesity indexes as

REFERENCE COUNT: THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS 32 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

well as the risk to exhibit residual hypertriglyceridmia following a

ANSWER 72 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

lipid-lowering therapy with fenofibrate.

2004:648355 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

141:190602

TITLE:

Preparation of N-cyclohexylaminocarbonyl

benzenesulfonamides as agonists or partial agonists or

antagonists of PPAR gamma

INVENTOR (S):

Sahoo, Soumya P.; Koyama, Hiroo; Miller, Daniel J.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PA'	CENT	NO.			KIN	D 1	DATE			APP:	LICAT	ION 1	NO.		D.	ATE	
	WO	2004	0669	63		A2	- :	2004	0812	,	wo :	 2004 <i>-</i>	 US68	9		2	0040	113
	WO	2004	0669	63		<b>A3</b>		2004	1111									
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	, JP,	KE,	KG,	KP,	KR,	KZ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG	, MK,	MN,	MW,	MX,	MZ,	NA,	NI
	ΑU	2004	2074	44		A1		2004	0812		AU :	2004-	2074	44		2	0040	113
	CA	2512	879			A1		2004	0812		CA :	2004-	2512	879		2	0040	113
	EP	1587	535			A2		2005	1026		EP :	2004 -	7017	35		2	0040	113
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	HU,	SK	
	JP	2007	5042	35		T		2007	0301		JP :	2006-	5365	29		2	0040	113
	US	2006	1115	35		A1	2	2006	0525	1	US :	2005-	5422	37		2	0050	715
PRIO	RIT	APP	LN.	INFO	. :					1	US :	2003-	4407	51P		P 2	0030	117
										1	WO :	2004-1	US68:	9	1	W 2	0040	113

OTHER SOURCE(S):

MARPAT 141:190602

GI

The title arylsulfonyl ureas [I; R1 = H, Cl, F, alkyl, haloalkyl; R2 = H, Cl, F, alkyl, alkoxy, etc.; R3-R5 = H, F, Cl, alkyl, etc.; X, Y = O, S, SO, SO2; n = 1-4] which are agonists or partial agonists or antagonists of PPAR gamma and are useful in the treatment and control of hyperglycemia that is symptomatic of type II diabetes, as well as dyslipidemia, hyperlipidemia, hypercholesterolemia, hypertriglyceridemia, and obesity that are often associated with type 2 diabetes, were prepared Thus, reacting 1-(3-bromophenoxy)-4-phenoxy-2-propylbenzene with 4-hydroxybenzenesulfonamide in the presence of cesium carbonate in DMF followed by reaction of the resulting 4-[3-(4-phenoxy-2-propylphenoxy)propoxy]benzenesulfonamide with cyclohexyl isocyanate in the presence of potassium carbonate in acetone afforded II. The pharmaceutical composition comprising the compound I is claimed.

L5 ANSWER 73 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:524725 CAPLUS

DOCUMENT NUMBER:

141:64843

TITLE:

The Peroxisome Proliferator-activated Receptor  $\alpha$  (PPAR $\alpha$  ) Agonist

Ciprofibrate Inhibits Apolipoprotein B mRNA Editing in Low Density Lipoprotein Receptor-deficient Mice:

effects on plasma lipoproteins and the development of

atherosclerotic lesions

AUTHOR(S): Fu, Tao; Mukhopadhyay, Debnath; Davidson, Nicholas O.;

Borensztajn, Jayme

CORPORATE SOURCE: Department of Pathology, Northwestern University

Feinberg School of Medicine, Chicago, IL, 60611, USA

SOURCE: Journal of Biological Chemistry (2004), 279(27),

28662-28669

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular

Biology

DOCUMENT TYPE: Journal LANGUAGE: English

AB Low d. lipoprotein receptor (LDLR)-deficient mice fed a chow diet have a mild hypercholesterolemia caused by the abnormal accumulation in the plasma of apolipoprotein B (apoB)-100- and apoB-48-carrying intermediate d. lipoproteins (IDL) and low d. lipoproteins (LDL). Treatment of LDLR-deficient mice with ciprofibrate caused a marked decrease in plasma apoB-48-carrying IDL and LDL but at the same time caused a large accumulation of triglyceride-depleted apoB-100-carrying IDL and LDL, resulting in a significant increase in plasma cholesterol levels. These plasma lipoprotein changes were associated with an increase in the hepatic secretion of apoB-100-carrying very low d. lipoproteins (VLDL) and a decrease in the secretion of apoB-48-carrying VLDL, accompanied by a significant decrease in hepatic apoB mRNA editing. Hepatic apobec-1 complementation factor mRNA and protein abundance were significantly decreased, whereas apobec-1 mRNA and protein abundance remained unchanged. No changes in apoB mRNA editing occurred in the intestine of the treated animals. After 150 days of treatment with ciprofibrate, consistent with the increased plasma accumulation of apoB-100-carrying IDL and LDL, the LDLR-deficient mice displayed severe atherosclerotic lesions in the aorta. These findings demonstrate that ciprofibrate treatment decreases hepatic apoB mRNA editing and alters the pattern of hepatic lipoprotein secretion toward apoB-100-associated VLDL, changes that in turn lead to increased atherosclerosis.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 74 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:467861 CAPLUS

DOCUMENT NUMBER: 141:38443

TITLE: Preparation of phenyl substituted piperidines as PPAR

agonists, in particular PPAR.alpha agonists, and their pharmaceutical

compositions and therapeutic use as hypolipemics.

antidiabetics, etc.

INVENTOR(S): Bagley, Scott William; Brandt, Thomas Andrew; Dugger,

Robert Wayne; Hada, William Andrew; Hayward, Cheryl

Myers; Liu, Zhengyu

PATENT ASSIGNEE(S):

SOURCE: PILZ

Pfizer Products Inc., USA PCT Int. Appl., 196 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:
FAMILY ACC. NUM. COUNT:

Г: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048334	A1	20040610	WO 2003-IB5235	20031114
W: AE, AG, AL,	AM, AT		, BB, BG, BR, BY, BZ,	

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CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                 20040610
                                             CA 2003-2507465
     CA 2507465
                           A1
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                                             AU 2003-276596
     AU 2003276596
                           A1
                                 20040618
                                                                     20031114
     EP 1567493
                                 20050831
                                             EP 2003-811832
                           Α1
                                                                     20031114
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     BR 2003016521
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                                             BR 2003-16521
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                                             JP 2004-554809
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                                             US 2003-720942
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     US 7199243
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                                 20070403
     NL 1024881
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                                 20040527
                                             NL 2003-1024881
                                                                     20031126
     IN 2005DN01615
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                                 20070119
                                             IN 2005-DN1615
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     NO 2005002921
                                 20050818
                                             NO 2005-2921
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PRIORITY APPLN. INFO.:
                                             US 2002-429506P
                                                                  P
                                                                     20021126
                                             WO 2003-IB5235
                                                                  W
                                                                     20031114
OTHER SOURCE(S):
                         MARPAT 141:38443
GI
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AB Title compds. I [wherein K = (CH2)m; L = (CH2)n; m, n = independently 1 or 2; V, Y = independently CH2, C(:O); F, G = independently H, halo, cycloalkyl, OH and derivs., alkylthio, (un)substituted alkyl; X = Z, B-CH2-Z and derivs.; B = O, S, SO, SO2, CH2, NH and derivs.; Z = CO2H and derivs., CONH2, tetrazolyl, etc.; E = CO, SO2, CH2; W = a bond, CO, NH and derivs., alkenyl, oxy, etc.; A = mono- or dialkylamino, alkanoylamino, alkoxy, (un)substituted (un)saturated 3-8 membered heterocycle or fused bicycle; with certain provisos; and their isomers, prodrugs and/or

pharmaceutically acceptable salts] were prepared as PPAR (peroxisome proliferator-activated receptor) agonists, and particularly as PPAR activators (no data). Disclosed are pharmaceutical compns. containing I, and the use of I to elevate certain plasma lipid levels, including high d. lipoprotein-cholesterol, and to lower certain other plasma lipid levels, such as LDL-cholesterol and triglycerides, and accordingly to treat diseases which are exacerbated by low levels of HDL cholesterol and/or high levels of LDL-cholesterol and triglycerides, such as atherosclerosis and cardiovascular diseases, in mammals, including humans. Further claimed uses include treatment of obesity, diabetes and related conditions, atherosclerosis, hypertension, inflammation, and thrombosis. For instance, II was prepared by adding (3S)-2-Methyl-2-[[3-(piperidin-3-yl)phenyl]oxy]propionic acid Me ester (preparation given) to a mixture of 4-(trifluoromethyl)benzyl alc. and CDI in toluene, followed by ester hydrolysis.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 75 OF 123 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:454436 CAPLUS

DOCUMENT NUMBER: 141:150792

TITLE: A novel selective peroxisome proliferator-activated

receptor  $\alpha$  agonist, 2-methyl-c-5-[4-[5-methyl-2-(4-methylphenyl)-4-oxazolyl]butyl]-1,3-dioxane-r-2-carboxylic acid (NS-220), potently decreases plasma

triglyceride and glucose levels and modifies

lipoprotein profiles in KK-Ay mice

AUTHOR(S): Kuwabara, Kenji; Murakami, Kohji; Todo, Makoto; Aoki,

Tomiyoshi; Asaki, Tetsuo; Murai, Masatoshi; Yano,

Junichi

CORPORATE SOURCE: Discovery Research Laboratories, Nippon Shinyaku Co.,

Ltd., Kyoto, Japan

SOURCE: Journal of Pharmacology and Experimental Therapeutics

(2004), 309(3), 970-977

CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: American Society for Pharmacology and Experimental

Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB NS-220 was newly synthesized and demonstrated to be a novel potent peroxisome proliferator-activated receptor  $\alpha$  ( PPAR.

alpha.) agonist with high subtype selectivity. In

cell-based reporter gene assays, the EC50 values of NS-220 for human

PPAR $\alpha$ , PPAR $\gamma$ , and PPAR $\delta$  were 1.9+10-8,

9.6+10-6, and >10-4 M, resp., and for mouse PPAR $\alpha$ .

PPAR $\gamma$ , and PPAR $\delta$  were 5.5+10-8, 3.3+10-5, and

>10-4 M, resp. In addition, [3H]NS-220 bound to the ligand-binding domain of

human PPAR $\alpha$  with a KD value of 1.85+10-7 M. Fenofibric acid and bezafibrate showed weak agonist activity for PPAR $\alpha$  (EC50,

2-8+10-5 M), with poor subtype selectivity. NS-220 (0.1-3 mg/kg

p.o.) decreased plasma triglyceride levels in ddY mice in a dose-dependent

manner, but its hypolipidemic activity was abolished in

PPARα-deficient mice. In KK-Ay mice, an animal model of type-2

diabetes, NS-220 (0.3-1 mg/kg p.o.; 4 days) and fenofibrate (100-300 mg/kg

p.o.; 4 days) decreased plasma triglyceride and glucose levels in a

dose-dependent manner. In a 2-wk repeated administration test, NS-220

(0.3-1 mg/kg p.o.) decreased plasma glucose levels markedly without increasing in plasma insulin levels. Furthermore, NS-220 increased

high-d. lipoprotein levels and decreased triglyceride-rich lipoprotein

levels. In conclusion, a newly synthesized dioxanecarboxylic acid derivative, NS-220, is a potent and highly selective PPAR $\alpha$ 

agonist that ameliorates metabolic disorders in diabetic mice.

These results strongly suggest that it will be a promising drug for the

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treatment of hyperlipidemia or metabolic disorders in type-2 diabetes.

REFERENCE COUNT:

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## => d his

(FILE 'HOME' ENTERED AT 14:28:06 ON 12 APR 2007)

FILE 'CAPLUS' ENTERED AT 14:28:26 ON 12 APR 2007
L1 478 S PPAR ALPHA AGONIST?
L2 32441 S DYSLIPIDEMIA OR HYPERCHOLESTEROLEMIA OR HYPERLIPIDEMIA OR HYP
L3 1308 S HDL LEVELS OR LDL LEVELS
L4 33426 S L2 OR L3
L5 123 S L1 AND L4

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